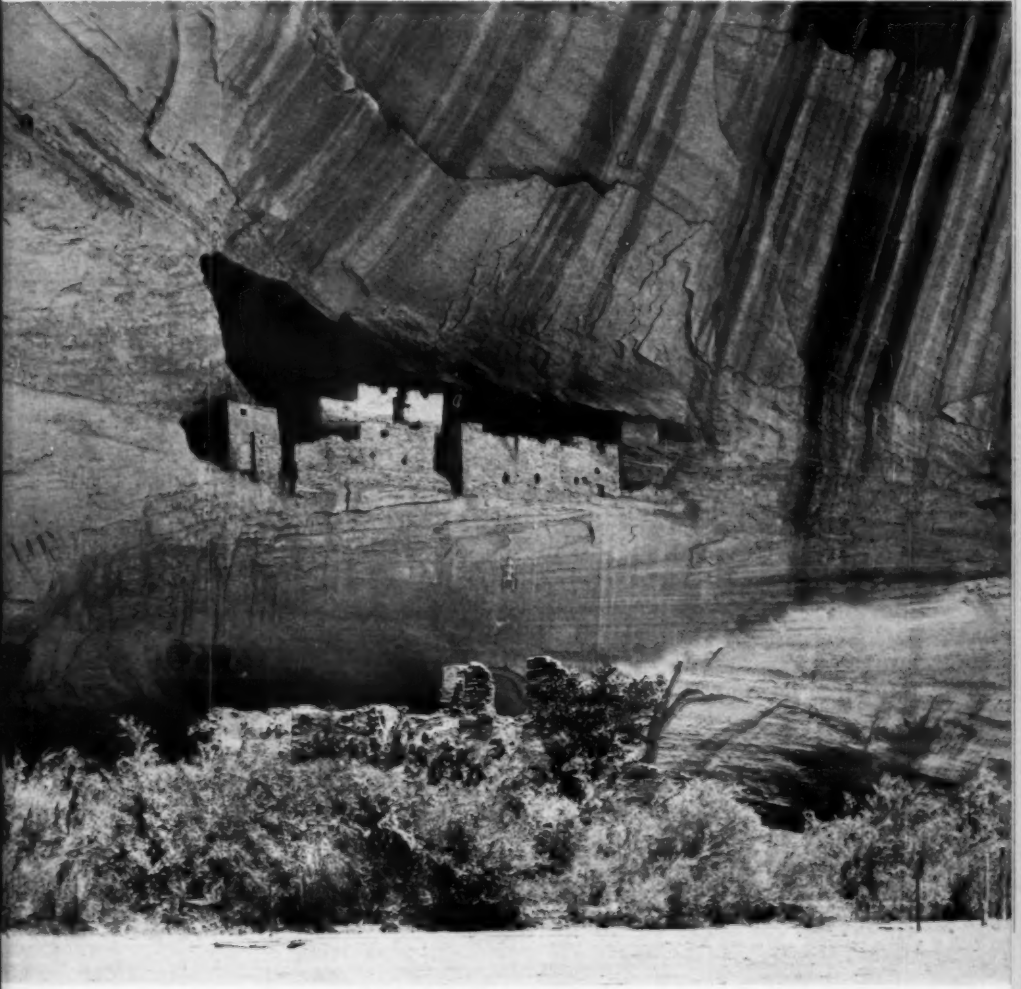


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NATIONAL PARKS MAGAZINE

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CANYON DE CHELLY — Page Seven

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"Today, after centuries of association, every bird and beast and creeping thing—the wolf in the forest, the antelope on the plain, and wild fowl in the sedge—fly from man's approach. They know his civilization means their destruction. Even the grizzly, secure in the chaparral of his mountain home, flinches as he crosses the white man's trail. The boot mark in the dust smells of blood and iron. The great annihilator has come, and fear travels with him."

JOHN C. VANDYKE.



NATIONAL PARKS MAGAZINE

formerly

NATIONAL PARKS BULLETIN

The Magazine of the National Parks Association

1214 Sixteenth Street, N.W., Washington 6, D.C.

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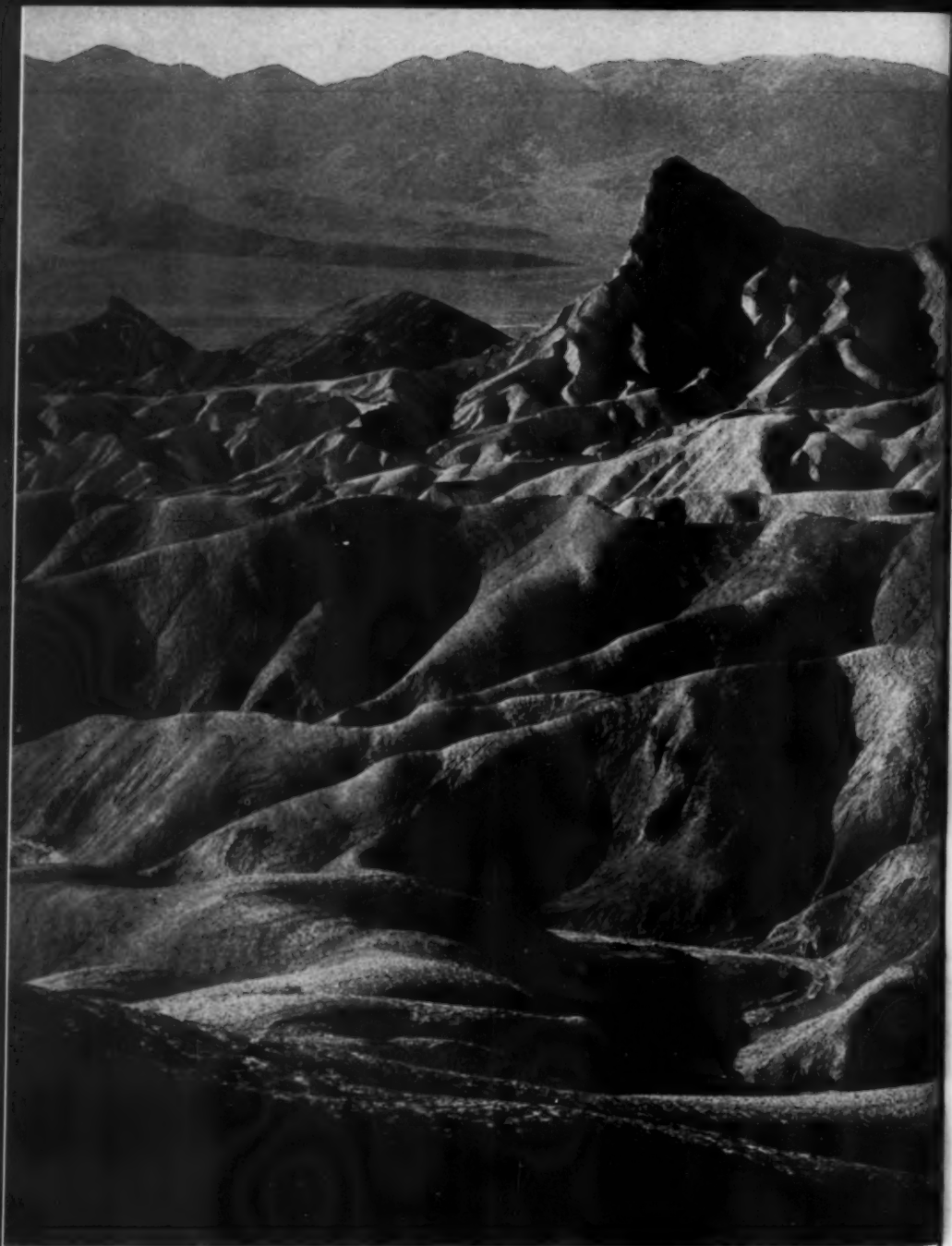
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NATIONAL PARKS MAGAZINE, formerly National Parks Bulletin, has been published since 1919 by the National Parks Association. It presents articles of importance and of general interest relating to the national parks and monuments, and is planned to be issued quarterly for members of the Association and for others who are interested in the preservation of our national parks and monuments as well as in maintaining national park standards, and in

helping to preserve wilderness. (See inside back cover.)

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Death Valley from Zabriskie Point.—What constitutes wilderness? Great roadless tracts seem to assure a high degree of solitude, but even small areas may have wilderness attributes from the biologist's point of view.

National Park Service

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WILDERNESS PRESERVATION

By CARL P. RUSSELL

THE idea of wilderness preservation is not new in conservation circles, yet there is lack of unanimity of opinion as to the objectives of this phase of nature protection. Perhaps the reasons for the failure of scientists and all who value undisturbed nature to get together in defining their purposes are due to the diversity of personal desires in the use of wilderness areas. These varied interests have brought about the organization of a number of societies that are specialized in their approaches to the wilderness problem. Until recently, a cliquishness characterized the activities of some of these groups, although today there exists a better amalgamation of interests. Certain independent organizations are concerned with saving the floral features of the wilderness; some are made up of bird lovers who look upon birds and bird migration as their particular interest; some are interested primarily in saving aquatic values; some focus their attention upon geological or scenic factors; some are made up of wildlife specialists; and a few are all-inclusive in their interests and seek to preserve truly representative bits of primitive America whether or not spectacular features are involved.

The programs of nature study and promotion of conservation conducted by these organizations have at least one common objective—they strive to curb the exploitation for private gain of the natural values in any of the protected areas of the country that lay claim to wilderness attributes. With this common ground as an avenue of approach, it should be possible to achieve the union of interests necessary to effective action in saving representative parts of the American wilds. A first desideratum is a definition of objectives.

One of the hurdles to be cleared in defining objectives in wilderness preservation is the recognition of the importance of

complete and unrestricted animal habitats within wilderness reserves. Beginning with the creation of Yellowstone National Park in 1872 and continuing to the present time, this element in wilderness preservation was ignored or was impossible to effect within the prescribed boundaries of most of the wilderness reservations in continental United States. It is futile to protect a herd of elk on its summer range, if inadequate provision is made for the protection of the same herd on its winter range. Similarly, it is folly to coddle the elk population on either summer or winter range until the population becomes so great that it destroys its natural food supply. The wilderness idea, at its best, implies a natural condition of all of the components of a wilderness area at all seasons and forever. An ideal wilderness reservation should include winter range for approximately as many migrating mammals as find natural accommodations within it in the summer season. Under present conditions in some areas it is impossible to make this provision for winter refuge. Nevertheless the effort made by citizens to increase wildlife has been so general for so long that it is difficult now for some organized groups to accept the fact that populations of certain species may be excessive even in preserves. It is difficult to convince some citizens that national parks may be overpopulated by certain species, and that measures for the control of some "game" species within these areas must be practiced. The primitive areas of national forests, state parks, national parks, and all other wilderness reserves fall short of the objective of wilderness preservation in the full sense so long as they fail to provide all-year habitats. Even though the ideal boundary is established, the areas will not be effective unless the natural controls, such as predators, are allowed to function. There are few areas

in the United States where all wilderness requirements can be attained.

The incompatibility of special uses in most of the wilderness areas of the National Park and Forest systems always will constitute an obstacle in maintaining true wilderness conditions in these areas. Unless provision is made through new legislation for the few wild areas in our country to be maintained on a true nature reserve basis, the nation must be content with the partial preservation of certain wilderness qualities in some favored national parks, national monuments, national forests and other reservations.

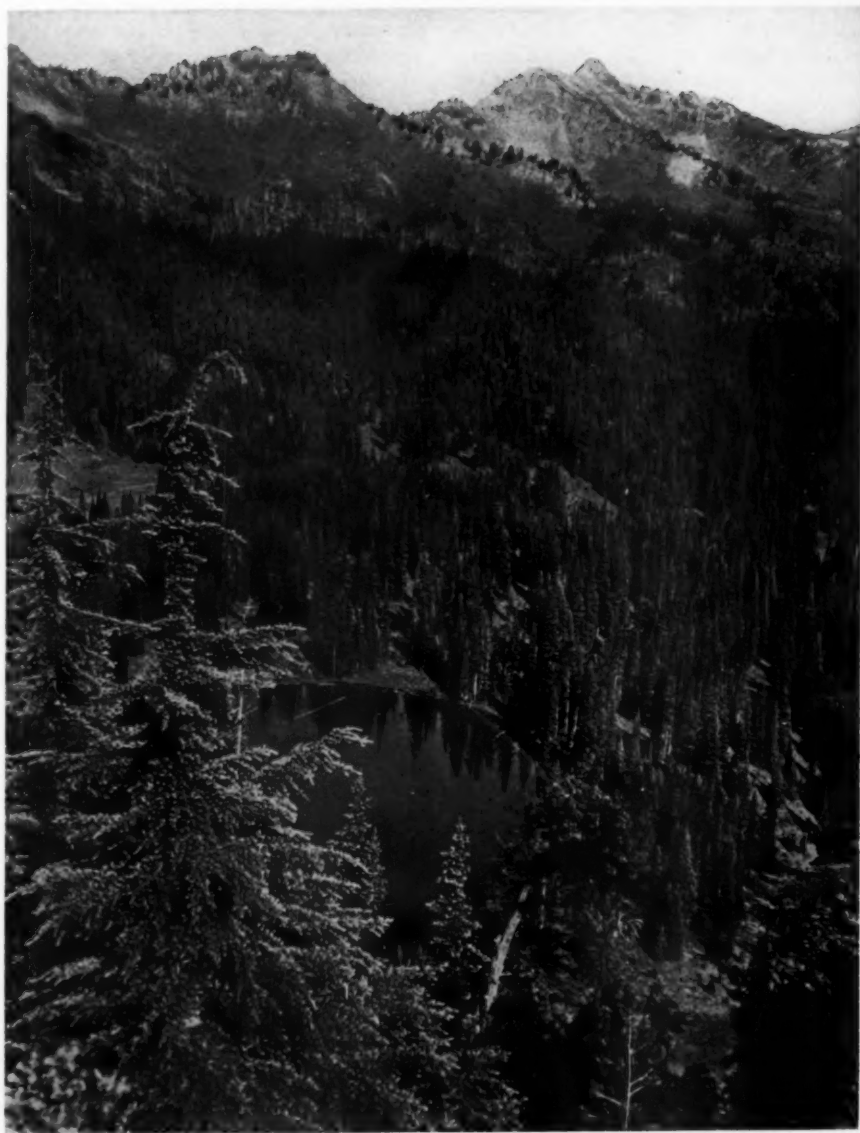
Even favorable legislation will not suffice if public opinion opposes administrative measures designed to maintain or restore natural biological relationships within the areas. A fair example of the attitude of sentimentalists and "game" interests toward truly natural conditions in wilderness areas may be observed in Alaska today, where pressure is exerted in an attempt to bring about the control of wolves in Mount McKinley National Park. This area is exceptional in having undergone little modification except for some depletion of the larger game and fur bearers prior to its establishment as a national park; but even in the fastnesses of Alaska the influence of gunning interests and wildlife managers concerned with conditions outside of the park tends to take over in the name of "conservation." In the United States similar contending factions exist in the cattle and sheep industries.

Another consideration in defining objectives is that of scope in wilderness preservation. What constitutes wilderness? A friend of mine has advocated the setting aside of some desert springs near Death Valley National Monument. These waters contain unique fish which are small and lacking in spectacular characteristics, yet the springs and their setting constitute a biological unit still free from changes brought about by human activity. Is this small spot in the desert with its tiny animal population to be classed as a wilder-

ness? It is my personal belief that our responsibilities for preserving rare scientific evidences and unique biological phenomena extend even to this minor area. Perhaps it may be extravagant to give to it national monument status unless investigation reveals that there are values present other than the unique fauna mentioned, but the important point to be made is this: The original landscape of North America has been mutilated nearly everywhere except in certain reservations and in a few unfrequented spots outside of those reservations. Human activity may destroy delicate values before state or federal responsibility can be developed. Perhaps responsibility in such matters could be engendered if scientists would work for a better coordination of interests among conservation organizations. Perhaps there should be a national clearing house and a board of appraisal through which notices of such opportunities for nature preservation may pass.

A notable failure in our mechanism for selecting and acquiring natural areas is found in the method whereby the states and the federal government set aside nature reserves. This they do largely on opportunistic bases; the process is collective rather than selective. (See *The Future of National Parks in Region One*, by Carl P. Russell, in the American Planning and Civic Annual for 1938.) Probably this method will continue until scientists, conservationists, and state and federal officials get together and survey the nation's superlative geological and biological values. Knowledge gained through such a survey may lead to shaping a master plan for the acquisition of the more significant areas needed to complete the systems of state and federal reservations in which the representative parts of the primitive American scene may be preserved.

A number of countries have dealt more directly with the preservation of natural areas than we. Several governments have simplified their problems of nature protection by eliminating the provision for "pub-



National Parks Association

Undisturbed nature amid the wilderness of Mount Rainier National Park.—
There is much to be gained from nature preserves other than the satisfaction of having saved native beauty for posterity. The study of their scientific evidences will lead to better conservation techniques which may have bearing upon economic progress and cultural enrichment.

lic benefit and enjoyment" of their natural areas. Many of their reservations are established for the expressed purpose of protecting native attributes. They are visited by students and nature-lovers but are not generally open to pleasure seekers.

Many inferences of importance may be drawn from a full account of the world's national parks progress, but from an outline of it we gather certain significant facts. First, that the United States of America took the lead in practical wilderness conservation when the Yosemite Grant was set aside as a state preserve. A second fact is that intensive preservation work was done by some of Great Britain's colonies, by Germany, Switzerland and Holland in advance of the concerted American effort; prior, even, to President Theodore Roosevelt's epic Conservation Conference of the Governors in 1908. And finally, that the wave of national park activity that spread throughout the world since the first World War was given impetus by the establishment of our own National Park Service in 1916. There is testimony to this fact in the literature of national park activity in foreign lands.* Many of the scientists of foreign reserves desire to preserve samples of original biota as standards against which to measure the effect of civilization. The living museum idea is uppermost with them.

The Society for the Promotion of Nature Reserves, has published a booklet, *Nature Conservation in Great Britain*, Memorandum No. 3 of the Conference on Nature Preservation in Post-War Reconstruction, London, 1943, in which recommendation is made that a central body should acquire and manage nature reserves that are of national importance, and exercise advisory functions in connection with reserves administered by local authorities. Emphasis

is given to the importance of nature reserves for purposes of scientific study and to the primary objective of continuous scientific supervision in the management of the areas. Enjoyment by the public finds no place in the British species reserve scheme.

A brief review of the history of wilderness preservation in the United States will help to attain a vantage point from which to view the more important problems.

1. The Yosemite Grant of 1864. The first state park.
2. The Yellowstone Act, 1872. The first reservation of a natural area as a national park.
3. John Muir's work and the establishment of more national parks and national monuments, 1890.
4. The United States Forest Service 1905. Multiple use of natural reservations.
5. The Antiquities Act, 1906, and its bearing on preservation of natural areas.
6. The Conference of the Governors and the creation of state conservation units, 1908.
7. Creation of the National Park Service, 1916.
8. The wilderness movement, 1920 to date. Some of the organizations and agencies especially responsible for the wilderness area concept are The Ecological Society of America, The Roosevelt Wildlife Experiment Station, The Carnegie Institution, New York State Museum, The Conservation Council, The American Society of Mammalogists, Society of American Foresters, the National Parks Association, The American Forestry Association, the American Nature Association, the Wilderness Society, the National Audubon Society, American Planning and Civic Association. Federal bureaus are the U. S. Forest Service, the Fish and Wildlife Service, Office of Indian Affairs and the National Park Service.
9. Primitive Areas of National Forests, now called Wilderness Areas, were created in 1930.
10. The Park, Parkway and Recreational Area Study, 1936. (1,000 State Parks, some preserve or restore wild conditions.)
11. The Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, 1940.

The outline suggests that there has not
(Continued on page 26)

* An informative reference on foreign parks and nature reservations is René Salgues' *Around the World in National Parks*, Revue Générale des Sciences pures et appliquées, Vol. XLVII, Nos. 9, 10, 12, 13. Paris, May 15, 31; June 30; July 15, 1936. This material was translated in 1938 by Hugh R. Awtrey. Several mimeographed editions were distributed to libraries by the Region One Office of the National Park Service, 1938 and 1939. Copies of the mimeographed editions are no longer available.

CANYON DE CHELLY

By CHARLES D. WYATT

THE dignified splendor of Canyon de Chelly National Monument is epitomized by Spider Rock as it towers above the quaggy sands of Canyon de Chelly like an olympian obelisk, showing the delicate tracery of eons of wind action, and colored like a benign sunset's ruddy glow.

Here the canyon walls rise vertically a thousand feet, separated by little more than twice that distance.

Canyon de Chelly is located near the heart of the great Navajo Indian reservation in the center of an immense area untouched by commercialization, where the Navajos live in primitive simplicity. Here one may see these proud Americans tending their flocks and tilling their fields in a manner unchanged from the customs of their people of a century ago. They call themselves, Diné—The People.

On the floor of the canyons The People plant their corn, beans, and melons in hills just as the Anasazi did before the coming of the Spanish. To these crops have been added alfalfa and wheat. Peach trees, whose blooms in April add a colorful fringe to the canyon walls, are tended with care and much of the resulting fruit is dried to bring variety to the monotonous diet of winter time.

The corn of the Navajo is as colorful as the land in which it is grown. From a single field, ears of every hue of the rainbow may be gathered. Soon after the corn is in the milk, the ears are snapped and allowed to dry in the husk while the fodder is stored in little adobe silos which are sealed, and the fodder used for feed while the next crop



Ted Cronyn

In the red gorge of Canyon de Chelly, Spider Rock stands as a symbol of the spectacular Southwest.

THE COVER—This is the famous prehistoric cliff dwelling ruin known as the White House. Set in a cavity of the towering red wall of Canyon de Chelly, it is one of the best preserved among the several hundred ruins in the national monument.

is maturing. These silos may be seen on protected ledges throughout the canyons and woe betide the young herdsman who permits his goats to break into them ere the time is right.

Since firewood is scarce in the canyons, late in the fall we see the hogans of the canyons deserted and the people migrating to other homes atop the towering walls. Here in the forests of pinyon and juniper there is plenty of wood to cook the mutton and bread and coffee which comprise the winter diet.

It is during the winter that the justly famous Chinle blankets take shape for the great day when they can be carried to the trader for an orgy of delightful bartering.

To test the lack of sophistication of a people, observe how undivided is their religion and their play. Even a brief résumé of their religion is far beyond the scope of this paper so let us pass it over with the statement that it attains a beauty that can be comprehended only after long association with the Diné.

Archaeology is the justification for Canyon de Chelly National Monument. The sites of both Basketmaker and Pueblo cultures, called Anasazi by the Navajo, are so numerous that they have never been accurately counted. It is estimated that there are over five hundred, varying in size from a two or three room unit perched precari-

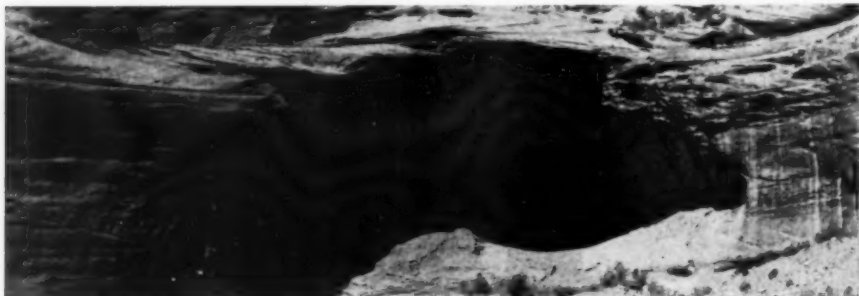
ously on an inaccessible ledge, to spectacular Mummy Cave, the extent of which has not yet been reported. In age, dendrochronology shows that they range from 348 A. D. in Mummy Cave to a probable 18th century occupation of White House.

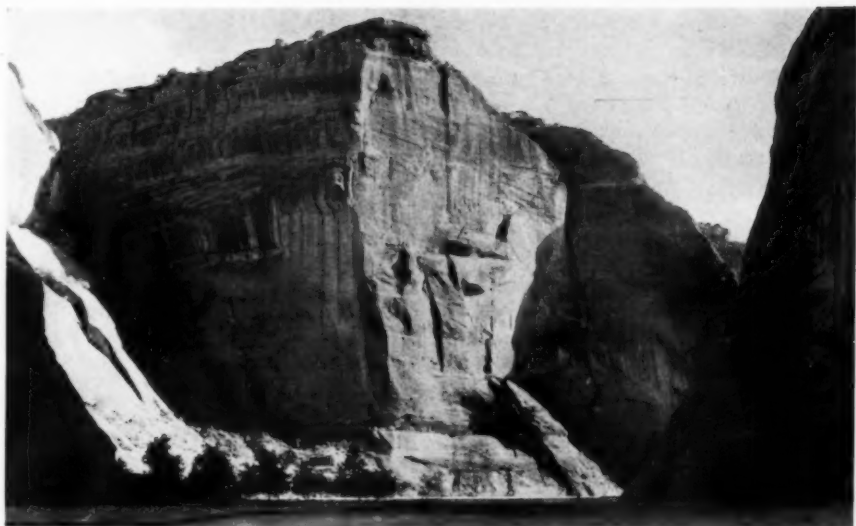
To gain a clear picture of the life in these prehistoric dwellings, we must wait for the publication of the reports of past excavations augmented by many more years of painstaking investigation. Today we can only surmise what a severe life it must have been with the triple specters of hunger, cold, and war ever in the offing. Toil was unceasing, to feed many mouths and build securely against attack and cold; and yet these people found time to create elaborate and graceful pottery and textiles of astonishing beauty.

The geology of Canyon de Chelly National Monument shows two stages in the deposition of wind-blown sand. Near the mouth of the canyon there is an area of sand dunes marching steadily before the prevailing winds without a sprig of vegetation to retard their progress. The towering walls of the canyons are composed of the de Chelly Sandstone, a wind deposit. This massive formation shows the curved lines of cross-bedding presenting a gracefulness that only nature can scribe. In the lower portion of the walls the lines are relatively short and are planed frequently

The ruins of Mummy Cave are 1576 years old, according to the annual rings in the timbers that were used in construction. The site is thought to be the longest continuously inhabited one in the United States.

National Park Service





National Park Service

As spectacular as Canyon de Chelly itself is the branch Canyon del Muerto, the great size of which is revealed by the man on the dry river-bed.

by thin horizontal beds that record a short period during ancient times when there was an inundation by perhaps a shallow lake or sluggish stream. Higher on the walls the lines lengthen and assume a dip to the southwest showing that the prevailing winds and the material came from the northeast.

Animal fossils are rare in the deposit but often we find the lithograph of ancient ferns in which each delicate line is so effectively imaged that one expects it to be swayed gracefully by the slightest breeze.

The age of the de Chelly Sandstone is the same as that of the Coconino deposits to the west but differs in texture, source, and mineral content.

Beneath the de Chelly Sandstone are the even red beds of the Supi formation which consists of shales and sandstones. Above the main formation we find the Shinarump layers resting unconformably on the sandstone. In many places great valleys have been eroded into the de Chelly Sandstone

and then filled with the chocolate brown Shinarump Conglomerate. One such valley may be seen near the head of the trail to White House Ruin. Great quantities of petrified wood are found in the Shinarump formation and several so-called petrified forests occur in the vicinity of the monument.

Wildlife in Canyon de Chelly National Monument is not abundant. Vegetation varies from the mighty western yellow pine to scrub juniper on the heights, and sagebrush lower down. Indian livestock has reduced the flowering plants and grasses on the rims of the canyons; while the unceasing quest of the Navajo for wood is thinning out the scrub juniper and pinyon.

Canyon de Chelly National Monument is administered by a resident custodian who is assisted by two seasonal rangers in the summer. Comfortable accommodations for long stays may be had at the Thunderbird Ranch, from which trips by automobile and horseback can be made into the canyons.

Potomac Dams Again

UNDER authority of the Flood Control Act of 1936, the Corps of Army Engineers is working on plans for the construction of dams for flood control and water power production on the Potomac River. This is a revival of similar plans that were proposed in the late 1920's. The present scheme calls for approximately twenty-five dams on the Potomac and its tributaries.

Three of the dams are proposed to be located in the gorge near Washington. The lower one would be placed a few hundred feet below Chain Bridge. The lake which it would create would flood the scenic valley and the historic Chesapeake and Ohio Canal for a distance of seven miles. This part of the canal is now administered by the National Park Service for recreation. A second smaller dam would be placed at Wide Water on the canal; and a third dam would come at a point two miles above

Great Falls. The falls themselves would not be flooded out, but the flow of water over them would be altered.

Already many local and national organizations have gone on record opposing the plan, and many others are expected to follow. The views of these groups are that the river, together with its wooded shores and palisades and the canal, should serve the higher use to the nation's capital as a recreational area. The development of the valley for this purpose has limitless possibilities that have hardly been touched.

Hearings are to be held on the proposed project in the late spring or early summer. At that time, all interested individuals and organizations will have an opportunity to express their opinions.

It is expected that the July-September issue of NATIONAL PARKS MAGAZINE will carry a complete story of the controversy.

Grandfather Mountain with its deciduous forest of partly primeval timber, and located along the route of the Blue Ridge Parkway in North Carolina, is now in danger of logging.



Shall Grandfather Mountain Be Saved?

By HARLAN P. KELSEY

WITH the establishment of the Shenandoah and Great Smoky Mountains national parks, a hopeful and encouraging beginning was made to preserve unspoiled for all time the finest natural features of the southern Appalachians.

The Blue Ridge Parkway with its 447 miles of superb scenery linking these two parks, furthered the movement. At intervals along this parkway and its protected strips of wooded land that were donated by the states of Virginia and North Carolina, notable sites have been chosen for minor parks wherein to provide rest and recreation camps for the traveller. Others are yet to be selected as the parkway nears completion.

By far the most superlative feature along the Blue Ridge Parkway is the famous Grandfather Mountain area, located about two-thirds of the distance from the Shenandoah to the Great Smoky Mountains National Park entrance. This is yet to be acquired, and now stands in imminent danger of irreparable despoilment by lumbering.

Grandfather Mountain and its contiguous, though more modest mate, Grandmother Mountain, comprise an almost virgin area of forests, flowers and cascades. For many miles the parkway hugs the northern and eastern slopes and ridges of Grandfather Mountain, affording spectacular views of hazy mountains and valleys and eastward lies the peaceful Piedmont region several thousand feet below. But a few feet short of 6000 feet elevation, Grandfather Mountain is the highest and most rugged peak in the Blue Ridge range and is said to be geologically the most ancient of any mountain on the American continent.

With the projection of the Blue Ridge Parkway through this area, the National Park Service became interested in preserving it as a mountain park and in establishing a camp on Grandmother Mountain.

For several years the North Carolina Conservation and Development Commission has realized the importance of conserving the area, and Mr. R. Bruce Etheridge, its Director, has recently stated that his Commission is in accord with efforts to accomplish this.

In a letter to the author dated February 7, 1944, Governor J. Melville Broughton of North Carolina says in part: "I have several times been over this area and have long felt that with its scenic grandeur, great variety of trees and other resources, it ought to be set apart for public service. It would be a loss to the state and the nation if this mountain and its immediate surroundings should be subjected to commercial exploitation."

Only recently were the owners of the Grandfather Mountain property able to name a price that seemed fairly reasonable to the National Park Service and others who might be interested in raising funds for its purchase.

The tract contains approximately 12,000 acres which, together with additional adjoining Government forest lands that eventually might be included, would comprise a park of over 22,000 acres.

Is the natural beauty of Grandfather Mountain to be lost forever by becoming the victim of commercialism as have other gems in the Carolina mountains? That is a question that must be answered without delay by those who would save in its natural beauty the remnants of a glorious mountain region. Outstanding, unimpaired scenic and wildlife areas remaining in the eastern United States that may yet be saved to serve the spiritual and recreational needs of present and future generations are few. Postwar demands for jobs and the development of resources soon may put in jeopardy those areas that have escaped destruction.

Grandfather Mountain must be saved!

EDITORIAL

Those Important Standards

NATIONAL PARK STANDARDS have been expounded, argued about and written about endlessly during a quarter century. There are probably few subjects more intricate and controversial.

On March 16th the standards received further publicity, for they were the subject of discussion in a meeting of the Illinois Conservation Council in Chicago. Those attending were members and friends of the Council, representatives of several allied groups, and members of the National Park Service staff. Participants in the discussion were R. M. Strong, Chairman of the Council; Newton B. Drury, Director of the National Park Service; Kenneth A. Reid, Executive Secretary of the Izaak Walton League; and your own Executive Secretary, Devereux Butcher.

Mr. Reid, the chief speaker, presented an excellent résumé of the many problems and questions pertinent to the standards and their application to national park management.

Originally formulated in accordance with the ideas of Stephen T. Mather, first Director of the National Park Service, and written by the Conservation Committee of the Camp Fire Club of America a number of years ago, these standards have been endorsed by nearly a hundred associations interested in the function, use, and preservation of national parks. They have been endorsed by the National Parks Association.

Editorials in the two foregoing issues of NATIONAL PARKS MAGAZINE have touched only briefly upon the subject, yet it is a topic that seriously concerns every person who wishes to see some of the last remnants of North America's primeval country preserved. The dangers that the postwar period hold for the Park System are likely to reveal, more clearly than at any time

before, the importance and significance of the standards.

In past years the standards were extensively written up in NATIONAL PARKS BULLETIN, the predecessor of NATIONAL PARKS MAGAZINE. The general public, however, knows almost nothing about them and the vital necessity of their acceptance and application in guarding our national parks.

The greatest foe to the National Park System is public ignorance of the standards upon which the System was founded, and the necessity of maintaining those standards uncompromisingly in the face of apparent plausible pretexts for breaking them down. Seventeen years ago NATIONAL PARKS BULLETIN asserted that, "The enemy we fight, is neither people, nor business, nor state, but ignorance. We shall win in the end, not by conflict, but by bringing to those who have not discovered it, knowledge of the purpose and mission of our National Park System."

The members of the National Parks Association are in a position to help spread this knowledge. However, because of the rapid growth of the membership during the past year, it is probable that many of the new members have not yet become familiar with the standards.

It is thought by some that the standards should be slightly revised, that in their present wording they are not sufficiently explicit in every detail. There is, and perhaps always will be, a difference of opinion on many points. Nevertheless, if we are to protect our areas of superb scenery as outstanding examples of primeval nature, we must delay no longer. It is true that the National Park Service has pretty generally adhered to the provisions of the standards, but they have never been clearly defined by law, and consequently the System is not wholly secure. The great

national parks should be given a distinctive name which will distinguish them as clearly in the public mind as similar appellations do the national historical parks and national military parks. The title "national primeval parks" has been sug-

gested by the National Parks Association.

The Association distributes free of charge a pamphlet called *National Park Standards, a Declaration of Policy*. Members not already familiar with the standards are urged to write at once for a copy.

Conference on Postwar Planning

IN an attempt to learn the Federal Government's postwar plans, conservationists called a conference in January, asking agencies to review their proposed projects.

The three-day conference, held in the Interior Department, was attended by representatives of private organizations including the National Parks Association.

Secretaries of Agriculture, Wickard, and Interior, Ickes, addressed the meetings, and talks were given by heads of the several land-management bureaus. The Federal Power Commission and the Bureau of Public Roads—both important in postwar planning—were not heard from.

Secretary Wickard said that what we need in this country is a broad conservation program instead of the present program of exploitation. Secretary Ickes told the meeting about his determination to keep the national parks intact, and he reviewed the recent threat to cut timber in Olympic National Park.

In the postwar period, the Fish and Wildlife Service may urge the establishment of an extension system, and it will continue the development of the federal refuge system. The National Park Service will ask for no large amount of manpower because its chief concern of maintaining natural conditions in the parks does not require large employment; but such problems as acquisition of private lands within the parks, rounding out certain park areas to provide winter range for wildlife, and the possibility of aiding the states in recreation development to alleviate pressure on the parks, will con-

stitute some of the postwar programs of the Service. The Office of Indian Affairs is confronted with a need for land acquisition to overcome the existing checkerboard land pattern. The Grazing Service will work toward range improvement and predator and fire control. The Forest Service will carry on a program of land acquisition, will increase fire and pest control, and construct new trails and access roads. In carrying on its important program of conserving the nation's soil, the Soil Conservation Service could employ as many as 200,000 men after the war. The speaker for the Reclamation Service, one of the chief exploiters of the land, said that several projects already begun will be completed. He mentioned development of the Missouri and Colorado rivers briefly, and said that the Service anticipated an expanded program for 800,000 people in need of employment after the war. The Public Health Service expressed interest in pollution control.

In general, the outcome of the meeting was not satisfactory, because few of the speakers discussed specific projects. A decided lack of coordination between agencies was revealed.

There is a need now, as has been mentioned by some, for another meeting in which the conservation organizations can express their views to the federal agencies on the many pressing problems of conservation that will arise in the postwar period. The National Parks Association stands ready to cooperate in arranging such a meeting.

Conservation Crosses Frontiers

By WILLIAM VOGT

Photographs by the Author

THE twelfth of October, 1940, was one of the most significant dates in the history of conservation. On that day, in Washington, representatives of twenty-one American Republics signed a Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere. After ratification by the governments of five nations, the treaty became effective in May, 1942. It has subsequently been ratified by three more governments, and other ratifications are expected to follow soon. The honor roll of governments that have ratified the treaty is as follows: The Dominican Republic, El Salvador, Guatemala, Haiti, Mexico, Peru, the United States and Venezuela.

A number of treaties have been signed, both in the Old World and the New, for the protection of flora and fauna. Few treaties, I think, have been so deeply grounded in

scientific thought, or have given so clear an expression to a philosophy. (I use the word "philosophy" in the sense of basic, organized thought.) The fact that a group of nations, operating in their individual interests, has been willing to subscribe to a highly evolved, and carefully thought out philosophy, represents a triumph of ideas. That the ideas embodied in this particular Convention will benefit the signatory peoples cannot be doubted by any informed person.

The expressed purpose of the treaty is "to protect and preserve in their natural habitat representatives of all species and genera of the contracting nations' native fauna and flora, including migratory birds, in sufficient numbers and over areas extensive enough to assure them from becoming extinct through any agency within man's

Latin America is dotted with beautiful and unique areas like these dunes and mineral springs at Huacachina in southern Peru—the stuff of which national monuments are made.





The procession of the peaks marches past the Strait of Magellan. In Chilean Patagonia lies the raw material of some of the world's most magnificent national parks.

control" and to "protect and preserve scenery of extraordinary beauty, unusual and striking geologic formations, regions and natural objects of esthetic, historic or scientific value, and areas characterized by primitive conditions in those cases covered by the Convention."

The various governments agree to strive for these objectives by, so far as possible, establishing national parks, national reserves, nature monuments, and strict wilderness reserves; by the protection of migratory birds; by the adoption, through legislative action, of protective laws; and by carrying on, so far as feasible, educational activities "consistent with the purposes of the Convention" in the respective national parks.

The most significant words in this Convention, it seems to me, are "natural habitat" and "native fauna and flora." They may prove to be among the most auspicious words ever written by representatives of the American Republics. For, instinct in them, may be the cure of the most grievous sickness affecting the Americas. The sickness—

abuse and destruction of the land—is far graver than ninety-nine percent of the peoples of the Americas realize. It is not *like* a cancer; it is a cancer. Unless something is done to check it, woeful years lie ahead for the American peoples. Not one of them is exempt.

I have recently spent two months in the rich province of Antioquia, Colombia. Day after day, following rains, the water ran from my bathroom faucets loaded with rich farmland. Agronomists told me that small farmers, having worn out their lands, are already leaving the province. Antioquia is looking toward an industrial future, but unless it also looks to its vegetation, it will find far less water than it now has, or than it needs. In Costa Rica, local naturalists told me that their capital, San Jose, is facing a water problem. The same problem has plagued Caracas, Venezuela, for years. The hillsides about Cuzco, Peru, look like some of the eroded red-earth lands of Georgia. On a recent trip from Mexico City to Morelia, a distance of 316 kilometers, I made a list of the kilometer posts from

which one could see soil erosion from the rapidly moving car; there were ninety of them. In south central Chile, gashes in the earth lie exposed like great sores. And so it goes. There are few of the Republics that are not plunging headlong toward lowered living standards, poverty and eventual collapse unless effective action is taken by them. Our civilization is no more exempt from the danger of obliteration than any that has gone before.

In the United States, we have made a valiant beginning toward solution of such problems, but I doubt if the most egregious optimist would claim that we are out of danger.

In many Latin American countries, conservation problems are vastly more difficult. Under the socialized agriculture of the Incas, it was possible to terrace Andean slopes for corn. In the modern, competitive world the farmer cannot afford time for terracing, but descendants of the Incas continue to plant the slopes. Most Latin American nations either have no coal, or lack transportation for it, or both.

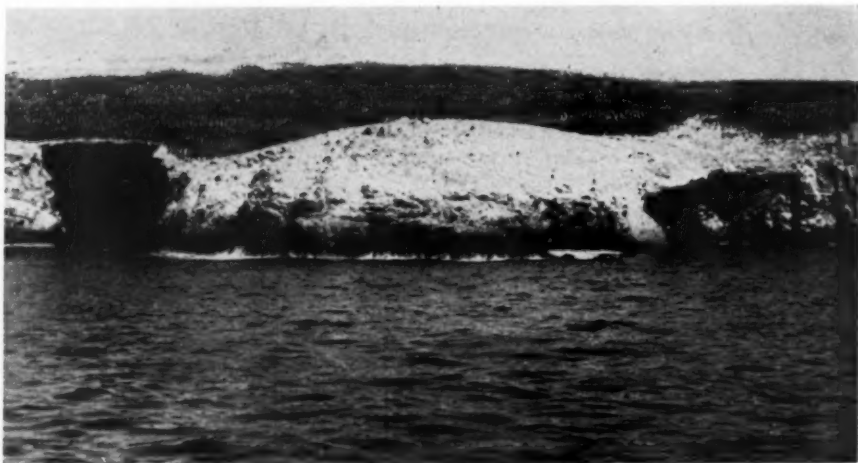
Virgin forests are far more difficult to find, south of the Rio Grande, than most people think.

In general, populations are expanding, and the trend of living conditions is upward. People whose ancestors never took a bath now take one a week; others even take a bath daily. More people plus more baths equals a demand for more charcoal, and charcoal must be obtained from forests. Most of the forests are on steep hillsides, and they are needed for conservation of soil and water. They are being cut far faster than they are being replaced, while the demand for charcoal increases daily.

Land tenure systems, illiteracy, geographical factors, economic complexities, are all part of this hemisphere puzzle; but none of them is so basic as loss of soil, vegetation and water; none so inescapable.

Someone has remarked that a good bird population is a symptom of healthy land. Certain it is that birds are few on worn-out, eroded land, and abundant on rich, well-vegetated land. The functioning of birds as insect and rodent controls is too

Peru's bird cities comprise one of the world's natural wonders. Breeding colonies have the status of national reserves, and the numbers of cormorants have increased until they blacken the islands.



well known to require repetition. Joseph Grinnell's little classic, "Uphill Planters," tells a memorable story of the place of birds in forest ecology. Yet, throughout Latin America, there is little appreciation of the value of birds; not more than two of these countries possess an economic ornithologist. Birds are thoughtlessly slaughtered, as they were in the United States fifty years ago; even more serious is the fact that the environment on which they depend is rapidly being devastated. And the situation in regard to birds is characteristic, to a greater or lesser degree, of all ecological factors. Soil, forests, grasslands, water, wildlife, all are being destroyed. The ecological point of view is only beginning to make its way south of the Rio Grande. Latin America is not yet thinking of environment as the sum of all its parts. (People in glass houses should not throw stones. Mosquito controllers in our own country, for example, have not got beyond the dry-it-up or oil-it stage of activities, though the cure may be worse than the disease.)

To a modern biologist it is a work of supererogation to insist on the validity of the ecological point of view. Our plants and animals, living together over many thousands of years, have achieved a success that promises indefinite survival, not only of the individuals, but of the environment of which they are a part and on which their survival depends. Man tampers with the environment at his peril. His mistakes have been legion and though retribution may be delayed, there is no escaping payment.

In most countries there are a few pioneers, usually scientists, who are aware of the dangers of ecological mismanagement, of the great opportunity offered by sound ecological methods. They played an important part in drafting the Nature Protection Convention. They are the Commandos of the guardians of the land. It is through them that the new philosophy has begun to make its way among the American nations.

For centuries, of course, after the con-

quest, the cultural blood-stream of Latin America flowed from Spain and Portugal. Then, as the Iberian stream dried and that of France came into full spate, French culture came to have more and more influence. Among the older generation in Latin America, French is still a second language. Scientists, engineers, agronomists, as well as lawyers, doctors and philosophers, went to Paris for their education. Much of the French pattern of civilization was imposed on Latin America. It is obvious in their theaters and opera houses, in medical methods and ethics. It is especially noticeable in many attitudes toward the land. Foresters and agronomists think in terms of small spaces, of the kindly landscape of the Midi, of intensive production, of artificial and expensive processes of land use, such as are practicable in a country of small distances and accessible markets.

A clue to this point of view is given by Latin America's national parks. Many areas carrying this title are no more than ten or fifteen acres in extent, and are highly artificial. They are conceived in terms of the Tuileries or the Bois de Boulogne.

This point of view is extended even to some of the larger areas. Despite the importance of dead trees in park ecology, they are carefully pruned out. Roads may be placed as conspicuously as possible, rather than made to lose themselves in the landscape. Among older park planners, the handiwork of the Creator is always subject to improvement by man.

Independent of the old philosophy, and largely in the New World, a new concept of national parks came into being in the Nineteenth Century. With it, ecological understanding sprouted. Comprehension of the environment as an organism, of the dependence of the whole on its parts, has profoundly influenced the thinking not only of naturalists, but of agriculturists, geographers and philosophers as well. It is to be hoped that the ecological idea has penetrated the minds of international politicians; that ecology will have a place of honor at the peace conference. If it hasn't,

we may as well begin preparing for World War III right now.

The progress made by the idea in the Americas is indicated by the wording of the Nature Protection treaty. It speaks of *native* plants and animals—not introduced species; and *natural* habitat—the beautiful and fascinating New World countryside, not the traditional ideas of some landscape architect!

The American landscape, from Point Barrow to Cape Horn, is unsurpassed anywhere in the world. Whether we consider the plains, mountains, forests, lakes, rivers, gorges, deserts or volcanos, or the creatures that live in and on them, our natural heritage has no peer. The components of this heritage have been slowly and awesomely evolved, over millenia. Their ecological balance is thrown off at great risk, as in the case of the wiping out of the magnificent high forests of Mexico by the lowly domestic goat.

The Nature Protection Convention, and the determination of a group of American governments to carry out its provisions, by giving force to the new philosophy, opens a new chapter in conservation of plants and animals. It establishes New World park standards, and gives us hope that America's natural beauty shall not perish from the earth. It places before the people of the Americas a more rational philosophy of land use than they have ever before known. To a very considerable extent, it shows the way to a correction of the destructive practices that are threatening the civilization of the Western Hemisphere.

Fortuitously, many—probably the great majority—of the New World areas suitable for national parks are what we, in the United States, have come to call "submarginal land." They are superbly beautiful, rich in plant and animal life, ideally adapted to the re-creative purposes we have come to associate with parks, but they are unsuitable for either agriculture or grazing. This is, from the park planner's point of view, extremely fortunate. Many of the Latin American countries are so short of

good grazing and agricultural land, that they could not afford to sacrifice extensive productive areas to scientific and recreational purposes. However, the best park areas in many countries will not stand economic exploitation. Their slopes are so steep that cover-destruction, or even reduction, results in soil erosion and water loss.

It is not suggested that all land unsuitable for agriculture and grazing be made into national parks. Much of it is suitable for commercial uses other than agriculture and grazing. Nor is it suggested that only submarginal land be used for parks. If all species of fauna and flora are to be preserved, protected areas must be set up in all life zones, to include all plant and animal associations. Such ideal conditions cannot, of course, be achieved overnight.

The establishment of national park areas throughout Latin America will serve not only as protection for the land and the plants and animals that live on it, but as a powerful educational force. Seeing is believing; with the soil held in place, rivers running clear and steady, and a supply of wildlife built up within these areas, the advantages of such land use will be manifest. Nothing is so important for the Americas today as a rational and vigorous system of natural resource conservation.

In the interest of such conservation, and to promote the purposes of the Nature Protection Treaty, the Pan American Union has established a Section of Conservation in its Division of Agricultural Cooperation. Funds for the first three years' operations were provided by the Office of the Coordinator of Inter-American Affairs.

Field studies, in Latin American countries, are in process, at the invitation of the respective governments. There has been initiated the collection of facts bearing on natural resource conditions, with special reference to fauna and flora. Every effort is being made to arouse, in the citizens and officials of the respective republics, a realization of the necessity of sound land use policies if their countries are to go forward among the nations of the postwar world.

Porcupine Mountains Preserved

ON February 8th, the following telegram reached your association's headquarters:

"Porcupine Mountain bill passed Michigan Senate today. Passed the House Monday, thus saving of the Porcupine Mountains for posterity becomes reality. Bill takes immediate effect and carries full appropriation one million dollars to acquire 43,000 acres virgin timber as forest museum or park. Lumber interests fought bill to last ditch. But failed to prevail." Signed, Raymond Dick, Secretary, Save the Porcupine Mountains Association, Ironwood, Michigan.

The bill was subsequently signed by the Governor on February 29th.

For many years the citizens of Michigan, aided by several national organizations, have fought to save the Porcupine Mountains area because it contained the last remnant of the original primeval forest that is typical of the Lake States region. (See *Going, Going, —, the Forest of the Porcupines* in the July-September 1943 issue of NATIONAL PARKS MAGAZINE.)

With lumber companies cutting rapidly into the forest during the past two years, Michigan people realized that they must act at once, or forever lose an irreplaceable heritage.

It is little short of a miracle to have succeeded in this endeavor in the midst of war. By so doing, Michigan has set an example to the whole nation. To Mr. Dick, Congressman John B. Bennett, Governor Harry F. Kelly, Mr. P. J. Hoffmaster, director of the state Conservation Commission, Mr. Ben East of the *Grand Rapids Press* and to many others go credit.

The area will be administered by the Michigan Department of Conservation, and will be preserved in its primitive condition. According to the Department, only the wildlife will be subject to exploitation, for

it is stated that the area will be partly or entirely open to hunting.

What shall be done in this regard is, of course, a matter for the Michigan people to decide. It seems unfortunate, nevertheless, that this decision has been made. With the area serving as a public shooting ground during the hunting season, which is one of the finest seasons of the year, it can hardly be of use during that season to the majority of people who would otherwise seek recreation there. Perhaps the public will presently demand that the area be made a wildlife sanctuary. Because wildlife is an outstanding and important feature of the primeval forest, it appears logical that it should merit the same complete protection in the Porcupines that is to be given the trees, plant life and other natural features of the area. Furthermore, northern Michigan already has five million acres of public hunting land.

It is interesting to know that the same bill which provided for the purchase of the Porcupines, provided appropriations for the development of a recreational area in the southeastern part of the state.

What Michigan can do other states should be able to do. We have in mind particularly Louisiana. The virgin forest of the Tensas Swamp in that state is still being hewn down, and today little of it is left. How about it, Louisiana? Are you going to lose your opportunity to save a remnant of the once vast primeval southern bottomland forest? (See *Act Now, Louisiana* in the July-September 1942 issue of NATIONAL PARKS MAGAZINE.) You might heed the words of Michigan's Governor at the time the Porcupines bill was passed. The Governor said: "That action was something to be proud of and no one will ever have to apologize for it."

Michigan conservationists, our hats are off to you!

WOODLAND FANTASIES

By DEVEREUX BUTCHER

Photographs by the Author

MOST people think of mushrooms in terms of their edibility, and the word "mushroom" suggests to many of us the species called *Agaricus campestris* which is raised commercially for food, and which is sometimes found growing in fields.

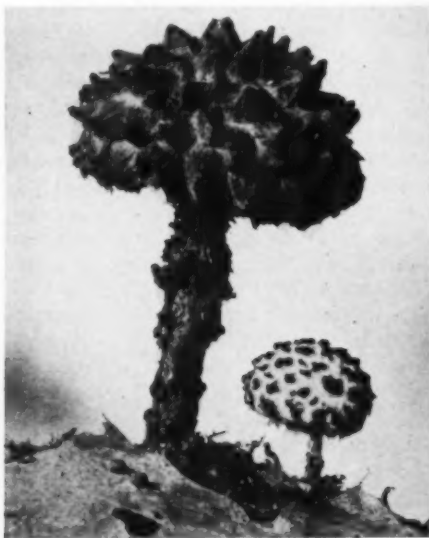
There are hundreds of species of mushrooms, and among them, surprisingly few are poisonous. However, contrary to popular belief, there is no reliable rule by which the edible can be distinguished from the poisonous. The best rule of all is "when in doubt, don't eat."

The shapes and colors of mushrooms are vastly varied, and it is this that makes a study of them fascinating. But entertain

no idea that their identification is easy. Some species are readily recognizable, but when it comes to certain genera, even the experts often refuse to identify a species previous to a microscopic investigation.

The dictionary defines the word "plant" as "a young tree, shrub, or herb; a slip, cutting, or sapling." Mushrooms belong to the plant kingdom, yet this description can hardly be applied to them. Actually, mushrooms and all fungi differ from other forms of plant life in that they contain no chlorophyll, the green coloring in leaves. Another odd thing about them is that they do not produce seeds. They propagate by spores. These are microscopic bodies pro-

Pine cone mushroom, at left, is scientifically known as *Strobilomyces strobilaceus*, and is unquestionably one of the oddest in appearance. It looks as though covered with brown wool. In height it ranges between three and five inches. Typical of the group having pores under the cap is bitter boletus, *Boletus felluus*, which varies from pale yellow to brown. The picture was taken in Acadia National Park, Maine.





The spiny mushroom at left is one of the several puff balls, and is scientifically known as *Lycopodium pulcherrimum*. It is pale brown, and is shown a little smaller than natural size. *Leotia stipitata*, seen here in its natural size, is one of the many small species that grow in clusters. Its irregularly shaped stems are yellow and the caps dark green. This group was photographed in Acadia National Park.

duced on the gills of the agarics, in the pores or tubes of the boletus and certain bracket species, on the erect stems of the clavaria, and on the downward-pointing teeth of the hydnums. It has been estimated that one mushroom produces from a billion to several billions of spores. In mass, they look like powder, although individually they are too small to be seen with the naked eye. So light is a spore, that in calm atmosphere, it may take several minutes for one to drop from the under side of the mushroom's cap to the ground. Spores sometimes are carried hundreds of miles on wind currents. Upon alighting in a favorable environment, germination starts. This is accomplished by the growth of a network of fibers that spread in all directions through the decaying wood or loam. According to the species, it may take from a month to two years before development

advances sufficiently for a plant or cluster of plants to grow upon the fibers.

The role of mushrooms in nature's scheme is to provide food for animals and insects, and to aid in the deterioration of dead or dying vegetable matter, that it may sooner be drawn upon as nourishment by a new generation of plants and trees.

The best time to find mushrooms is after a prolonged rainy period in late spring and summer. If you have never taken particular notice of mushrooms and other fungi, try doing so. You will be amazed at their colors, which range from the most brilliant reds, orange and yellows to pure white. There are pink ones, tan ones, green ones, purple ones; and there are combinations of these colors. The multiplicity of forms among mushrooms is astonishing. Only a slight suggestion of their variety is given in the accompanying pictures.

Polyporus versicolor is one of the smaller species of the bracket type, which grow horizontally on dead wood. This one is velvety brown on top, with a chalk-white porous under surface. It remains dormant through the cold months, adding a new band along the outer edges during rainy periods in spring and summer. The scientific name, when translated, simply means a many-pored fungus of varied color.



This specimen of *Hydnum coralloides* grew on a rotting tree trunk beside a creek at Lake McDonald Hotel in Glacier National Park, Montana. The picture shows a portion of the plant a little larger than natural size. When mature, it is white, turning brown with age. The downward-pointing teeth are characteristic of the hydnums which occur not only in this branching form, but also in the cap and stem types of fungi.



Beauty in mushrooms reaches its height in *Clavaria flava*, one of the coral group. This species stands four or five inches tall, and is bright yellow. The author discovered a small colony of this mushroom in a forest of giant Engelmann spruce in Glacier National Park. Its clear color and graceful formation, set in the dull colored forest floor, is a treat to behold. The species provides also a treat to the palate, for it is edible, and has an excellent flavor when cooked in the manner prescribed for most of the edible mushrooms.

The elegant form and pure whiteness of *Amanita phalloides* act as a lure to the unwary person with an appetite for mushrooms. A year never passes without deaths from mushroom poisoning, and this species is the villain. Characteristics of this amanita are the bulbous base and the veil hanging below the gills; but even these distinct features cannot always be relied upon for identification. The color varies occasionally, specimens sometimes being found with a blackish or brownish tinge. This mushroom, photographed in Acadia National Park, is typical of the kind of fungi that possesses gills.





The morel is so distinct in appearance that it can be identified readily by the least experienced mycologist. This species is scientifically known as *Morchella esculenta*. The deeply pitted cap is light brown and the stem nearly white, and both cap and stem are hollow. The morel does not comply with the general conception of what a mushroom should look like. The species is not rare, and when fresh, it is prized for its edibility. This specimen was found in Rock Creek Park, Washington, D. C. The picture was made from one of the author's many kodachromes.

The chief characteristics of the chanterelles are the thick, blunt-edged, branching gills that extend down the stem, and the funnel-form, which is very pronounced in *Cantharellus floccosus*, shown here about one half natural size. The specific name of this rusty yellow mushroom refers to the flaky upper surface. In appearance, the chanterelles somewhat resemble certain species of *Clytocybe* that also have decurrent gills and are frequently funnel-form. This particular chanterelle, however, is so distinct in its appearance, that it is one of the easiest of all mushrooms to identify.



The Tensas and the Everglades

AS reported in the January-March issue of NATIONAL PARKS MAGAZINE, there remained but 7000 to 8000 acres of the primeval forest of the Tensas Swamp in northern Louisiana. Since that time, the Chicago Mill and Lumber Company's operations have continued to cut into it; yet, in spite of the rapidly diminishing size of the virgin forest, the area still harbors the nearly extinct ivory-billed woodpecker.

The State of Louisiana has lately shown that it is prepared to spend \$200,000 toward acquisition of the area. In November, the governors of Louisiana, Arkansas, Tennessee and Mississippi signed and submitted a joint appeal to the officials of the Chicago Mill and Lumber Company urging cooperation in the establishment of a refuge. Secretary of the Interior, Harold L. Ickes, has written to the company expressing a similar request; and the Fish and Wildlife Service has made known its willingness to assist, but not in a financial way. In early December the company officials stated that they were unwilling to cooperate; that they had no intention of ceasing their lumbering operations in the tract; that they wanted no further interference from any agencies; and that they recognized no responsibility toward the wish of the public.

At the annual meeting of the Outdoor Writers' Association of America held last February in Columbus, Ohio, Mr. John H. Baker, Executive Director of the National Audubon Society, a member of the Board of Trustees of the National Parks Association, gave out the above information. As a result, the Writers adopted the following resolution:

"Resolved, that the Outdoor Writers' Association of America, assembled in conference February 23, 1944, backs the policy of the Federal and State governments and private conservation agencies in their current effort to establish, in a portion of the so-called Singer tract in northeastern Louisiana, an

inviolate wildlife refuge in an attempt to preserve, for all time, America's rarest living bird, the ivory-billed woodpecker, and the finest remaining stand of primeval southern hardwood timber, and also because of the abundant wildlife inhabiting the area.

"Be it further resolved, that the O.W.A.A. lend its best efforts to bringing the situation and the need of prompt action to the attention of the public."

The National Parks Association has recently written to President Roosevelt to bring to his attention the seriousness of the problem, and respectfully urging him to use his power to help preserve the area.

The situation is far from bright, but there is still some hope of eventual preservation of this last bit of primitive southern bottom-land forest as a wildlife refuge.

The recent added complication to the establishment of the proposed Everglades National Park in Florida resulting from the discovery of oil at the Number 1 well of the Humble Oil Company, remains almost unchanged since our report in the January-March issue. The Company has not proved, according to latest reports, that the well is a commercial producer, and has not received, therefore, the state reward.

In January a conference was held at Coral Gables to discuss this newest threat to the proposed park. Among those present were Congressman Peterson of Florida, Chairman of the House Public Lands Committee; Mr. Drury, Director of the National Park Service; Governor Holland; and Mr. Coe, Director of the Everglades National Park Association. At the meeting, certain plans were suggested which would provide means for protecting parts of the Everglades until, and if, the lands could be placed under the care of the National Park Service. It is hoped that these plans, still in the formative stage, will soon be worked out and will be accepted by the agencies involved and promptly put into effect.

WILDERNESS PRESERVATION

(From page 6)

been any organized approach to the wilderness problem prior to the 1920's. The accomplishments of the past two decades have resulted from better organization, but, as stated earlier, there continues to be a scattering of shots. The last item in the outline seems to be a potential force that may exert marked influence on wilderness preservation. (See Congressional Record, April 7, 1941, and National Parks News Service Release No. 48, March 14, 1942, issued by the National Parks Association.) Perhaps this treaty provides the medium for concerted action in nature protection in the United States. Legal means of making the treaty effective were not devised by the Committee of Experts on Nature Protection which drafted the convention. The scope and purpose of the legislation necessary to implement the treaty in the United States can be defined only after legal experts have explored the implications of the convention and its bearing upon existing laws and programs. This is now being carried out in the Solicitor's Office of the Department of the Interior.

The wilderness ideal expressed in the planks of the platform of the Wilderness Society are:

1. That the wilderness (the environment of solitude) is a natural mental resource having the same basic relation to man's ultimate thought and culture as coal, timber, and other physical resources have to his material needs.

2. That the use of this resource should be considered a public utility and therefore its commercialization should not be tolerated.

3. That the time has come, with the brutalizing pressure of a spreading metropolitan civilization, to recognize wilderness environment as a human need rather than a luxury and plaything.

4. That this need is being sacrificed to the mechanical invasion in its various killing forms.

5. That scenery and solitude are intrinsically separate things, that the motorist is entitled to his full share of scenery, but that motorway and solitude together constitute a contradiction.

6. That outing areas in which people may enjoy the non-primitive forest are highly desirable for

many pent-up city people who have no desire for solitude, but that such areas should not be confused in mental conception or administration with those reserved for the wilderness.

7. That, since primeval succession can never return once continuity has been severed, it is manifestly the duty of this generation to preserve under scientific care, for the observation, study, and appreciation of generations to come, as many, as large, and as varied examples of the remaining primitive as possible.

8. That the wilderness remaining in America has shrunk to such a small remnant of the country's total territory, that whatever area does remain is all-precious and its preservation is a vital need.

9. That encroachment upon our remnant of American wilderness in any one locality is an attack upon the whole and creates an issue of national moment and not for local action alone.

10. That since the invasion of wilderness areas is generally boosted by powerful, country-wide organizations, it is essential that individuals and groups who desire to preserve the wilderness must unite in a country-wide defense.

11. That the means of achieving our objectives should be positive and creative as well as merely defensive, and hence that a long-range plan should be evolved toward bringing forth its mental and ultimate human uses.

From a National Park Service standpoint, the platform leaves little to be desired unless it be further emphasis upon the idea of fluidity of certain wilderness values and the importance of controlling man's use of those wilderness elements which cannot be fixed within the confines of a reservation. Perhaps the forthcoming legislation designed to implement the Convention on Nature Protection will suggest a practical addition to plank number 7.

The concept of "outing areas," as contrasted with wilderness, in plank number 6, should receive study by all who are concerned with nature reservations. Herein may be the embryonic solution to the perennial problem of conflict between the recreational planner and the defender of the primitive. British findings in this connection already point the way.

Emphasis is placed by some wilderness

enthusiasts upon the size of roadless areas as a criterion of the wilderness value of the lands involved. This approach does enable one to draw a comparison relative to the solitude in each of the areas, but it may lead to some unfair conclusions. Especially will this be true if pleasure-seekers take to the air as expected by many travel specialists. In 1936, the Wilderness Society identified and charted seventy-seven roadless areas in the United States, which range in size from 300,000 to 8,890,000 acres. At least twenty-four of them are in or include national parks and national monuments. Outside of these larger roadless areas are many spots within which conservationists can restore precious primitive characteristics.

Some of them should be added to state park systems, and some, I feel, might be dedicated to research or student use—a relatively new category in the United States (see *Point Lobos Reserve*, by Newton B. Drury, *American Forests* for July 1938); and several others should be considered for inclusion in the federal park system. If the Convention on Nature Protection supplies the medium through which surveys, appraisals, classification, and preservation of these needed areas may be attained, it will, indeed, stand as a great factor in solving the wilderness problem in America.

It may be presumptuous to refer here to the several areas that have been mentioned in recent years as desirable additions to the Federal Park System. To do so may imply that these areas are the only important lands still outside of the national park and monument classes. I am not sure that all of them are the most important, but it is obvious that some of them contain treasures that cannot be questioned and I list all of them as worthy of consideration.

The proposed Everglades National Park in Florida, on which articles have been published in foregoing issues of *NATIONAL PARKS MAGAZINE*.

The Great Plains National Monument consisting of three quarters of a million acres of short-grass prairie lands of the

Saskatchewan biotic province in Fall River County, South Dakota, and Sioux County, Nebraska, representative of the grass-lands country of the Great Plains. The possibility of restoring original biological values on this area are promising. (See *A Proposed Great Plains National Monument*, by Victor H. Cahalane in *The Scientific Monthly* for August 1940.)

The Porcupine Mountains in Michigan is a proposed reservation consisting of some 46,000 acres of northern virgin pine forests, small lakes and intricate river systems of the Canadian biotic province.

Mount Katahdin in Maine has tundra characteristics and other Hudsonian Zone attributes that distinguish it as unique among proposed areas.

The Kissimmee Prairie in Florida offers opportunity to preserve a representative tract of grassy marsh and cabbage palm and palmetto biota similar to the northern Everglades ecologic association. Here is the last reasonably extensive tract of comparatively undisturbed habitat of such rare birds as the Florida burrowing owl, the Florida crane and the Audubon's caracara.

A southern Oregon Coast and Port Orford Cedar tract in Oregon might comprise several known coastal areas of superlative beauty and scientific interest. A Port Orford Cedar tract has been located which may be added to the existing Oregon Caves National Monument.

Usually proposals to investigate new areas to determine their eligibility to national park or monument status arouse a storm of protest in several quarters. This is a healthy condition that makes for careful scrutiny of each plan and a review of all that the areas have to commend or condemn them. Until a nation-wide survey of geological and biological exhibits has been made, it is not possible to arrive at conclusions regarding the importance of all areas and the degree of national interest which should be directed upon them. This fact alone, is reason enough to cause all wilderness area proponents to defend the Antiquities Act—that measure of 1906

whereby the Presidents of the United States have proclaimed a number of important national monuments through the transfer of publicly-owned lands.

Dr. Isaiah Bowman, in *Science* for February 1941, writes as follows:

"The conservation of our natural resources . . . is a problem in social ethics. . . . I emphasize the careful location of conservation in the American scheme of things because of the great number of techniques . . . among which it is easy to get lost. . . . The gap is so wide between the forested watershed above and the farm below that cause and effect are less obvious. It is the social ethic that lags behind. Time is wasted on postmaster-ships that should be spent in quickening the national conscience about the waste of things we shall never again recover, like the forty-acre farm that goes down the Mississippi every minute. . . . The goal (of democracy) is a controlling majority doing the right thing as a result of intelligent forces at work within, rather than by arbitrary force imposed from without. Conservation is therefore educational. . . . But I would warn you that the educational task is partly an emotional task as well as a task in reason and persuasion. Some one must be on fire about it."

There is much to be gained from nature

preserves other than the satisfaction of having saved native beauty for posterity. May we not combine our efforts in caring for and studying the natural scientific evidences upon which better American conservation techniques may be built?

I should like to urge that (1) all conservation interests focus attention upon the Convention for Nature Protection as a means of obtaining a union of forces; (2) that this united force, which may be organized under the Convention, be directed toward a survey of natural values and wilderness characteristics throughout the United States; (3) that on the basis of appraisal to be made by a central board of experts the outstanding natural areas of the country be classified according to their qualities and the degree of public interest that they hold; and (4) that recommendations be made by this board to local, state and federal authorities regarding acquisition of the more important unreserved areas as public reservations of such classes and denominations as becomes their character.

Rock Creek Wood-Cutting Stopped

THE public wood-cutting program that was started by National Capital Parks last November, to "clean up" Rock Creek Park—the wild woodland of the nation's capital city—terminated in mid-January, shortly after the January-March issue of NATIONAL PARKS MAGAZINE came out.

Although the interest of the wood-cutters dwindled from the start, a number of organizations expressed opposition to the program. These groups urged the "hands-off" policy in the management of the park, in order that this 1700 acre forest might be kept in its wild state.

It is important that the park be so preserved, not only because it offers opportunity for city people to see a truly wild forest, but also because certain rare or vanishing species of animal and plant life are still existent there. Many of these would vanish from the area if it were formalized like other city parks. Flying squirrels, barred owls, quail, and both red and grey foxes are present, while moccasin flower, showy orchis, arbutus and royal fern are among the nearly vanished plant species. That these may not altogether disappear from Rock Creek Park, let us keep it wild.

Never destroy a copy of NATIONAL PARKS MAGAZINE. The largest single element in the endeavor to preserve nature and primitive wilderness is public enlightenment. You can help the cause by passing your copy of the magazine on to a friend, or to a school, hospital or public library, so that its message will spread and benefit the nation.

CONTRIBUTORS TO THIS ISSUE



Carl P. Russell

Dr. Carl P. Russell (*Wilderness Preservation*) has been engaged in National Park Service work since 1923. As technician and executive his efforts have been directed toward the preservation and interpretation of the historical and scientific features of the national parks and monuments. After World War I he remained in France for a year and worked in the National Museum, Paris, on the natural history and nature reserves of France. In 1936 he visited Belgium, Germany, Austria, and Switzerland to learn about the museum programs and nature preservation movements in those countries. His publications have pertained to ecological problems and to the conservation of historical and natural values in the United States. The history of the American fur trade in the far West and its relationship to ethnological groups and the native fauna provides his principal hobby. Dr. Russell is Chief Naturalist of the National Park Service.

Charles D. Wyatt (*Canyon de Chelly*) was born in 1907 on a farm near Lincoln, Nebraska, but his parents moved soon thereafter to Beloit, Kansas. It was here that Mr. Wyatt attended school. In 1925 he entered Kansas State College, majored in geology and became a member of Alpha Tau Omega. Three years later he entered the Colorado School of Mines. Mr. Wyatt is a registered engineer in the State of Nevada, and has held several engineering positions including one at Boulder Dam. Mr. Wyatt is married and is the father of two children. Previous to the start of

war, he was custodian at Canyon de Chelly National Monument in Arizona. He has served in the armed forces as a first lieutenant in the Coast Artillery-Anti-Aircraft.



William Vogt

William Vogt (*Conservation Crosses Frontiers*) has held numerous important positions in scientific and conservation organizations during the past fourteen years. From 1930 to 1932 he was Assistant Editor of the New York Academy of Sciences; and in the period 1935-39 he was Editor of *Bird-Lore*—now *Audubon Magazine*—and field naturalist and lecturer for the National Audubon Society. For a number of years Mr. Vogt has been consulting ornithologist of Campaña Administradora del Guano, Lima, Peru. In 1938 he was awarded a research prize by the Linnaean Society of New York, and became Chairman of the Society's conservation committee. Other organizations to which Mr. Vogt belongs include the Wilson Ornithological Club, Ecological Society of America, the American Geographic Society and the National Parks Association. Author of *Audubon's Birds of America*, he has contributed many articles to magazines. Mr. Vogt is now Chief, Conservation Section, Pan American Union. In this capacity he is at present in Mexico, and for three years he will carry on conservation work there and in other Latin American countries.

Devereux Butcher (*Woodland Fantasies*) is Executive Secretary of the National Parks Association and Editor of NATIONAL PARKS MAGAZINE.

Opinions expressed in signed articles are not necessarily those of the Association.

News from the Conservation Battlefronts

NEW ENGLAND WILDFLOWER PRESERVATION SOCIETY, INC., Horticultural Hall, 300 Massachusetts Avenue, Boston, Massachusetts.—The Society, founded in 1922, is working to spread information on conservation throughout New England. In each New England state the Society maintains a chairman who forms her own educational committee. Conservation of our natural resources has grown to be of tremendous importance today, and the Society was one of the pioneers in conservation work. We distribute literature free throughout New England, and everyone is urged to bring their conservation problems to us either by mail or in person. The Society loans illustrated lectures to schools and camps free of charge, and to adult organizations for a small fee. A chart of the twenty-five wild flowers most needing protection; wild flower postcards; small books on birds, trees, insects, wild flowers, and so forth, are offered for sale. The Society, supported by its membership fees, invites all interested persons to join and help the cause.—Mrs. H. M. CROSBY, *President*.

NATIONAL WILDLIFE FEDERATION, 1212 Sixteenth Street, N. W., Washington 6, D. C.—National Wildlife Week was observed this year with the week beginning March 19. Proclaimed by President Roosevelt in 1938, the week has been sponsored each year by the National Wildlife Federation from its Washington, D. C., headquarters. During the week the story of wildlife—its decline, its restoration and its conservation—was told through the press, from the public platform and over the radio to 15,000,000 conservationists in the United States. How the conservation of wildlife ties in with pure water, standing forests, less erosion, more productive lands and fewer dust bowls, was the theme that presented the drama of American life.

The National Wildlife Federation each year issues a sheet of wildlife poster stamps which are reproduced from paintings by famous American nature artists. This year thirty-eight species are represented in the sixty-four stamps on the sheet.—L. W. WENDT, *Executive Secretary*.

OHIO DIVISION OF CONSERVATION AND NATURAL RESOURCES, Columbus, Ohio.—Old-type statues, captured cannon and the like, which have been used to honor heroes of past wars undoubtedly will give way to the more sensible living memorial which many communities will adopt. The Ohio Conservation Commission is advocating living memorials in honor of the heroes of World War II. They may include such community projects as public forests, memorial lakes, parks, playgrounds, community buildings, libraries—memorials that people can use.—L. R. BALINGER, *Chairman*.

THE INTERNATIONAL COMMITTEE FOR BIRD PRESERVATION, Pan American Section, 1006 Fifth Avenue, New York 28, N. Y.—The death of Doctor T. Gilbert Pearson has been a blow to the furtherance of international bird protection. It is gratifying that men prominent in the conservation field have rallied to the support of this work. The program will continue under the direction of the following: Dr. Alexander Wetmore, Chairman, United States Section; Hoyes Lloyd, Chairman, Pan American Section; Dr. Robert Cushman Murphy, Vice-Chairman, Pan American Section; Mr. William Vogt, Delegate and Official Representative of the Pan American Section in Mexico, Central and South America; Mr. Carl Buchheister, Secretary, Pan American Section; Mr. Marshall McLean, Treasurer; Mr. Louis C. Goetting, Jr., Assistant Treasurer.

AMERICAN NATURE ASSOCIATION, 1214 16th Street, N. W., Washington 6, D. C.—Just as the great herds of bison, the main support of several tribes of native Americans of the Great Plains, were practically exterminated within a few decades after their discovery by the invading white man, so are the Alaskan caribou bands following the trail of the departed bison.

In a letter from a resident of Rampart, on the Yukon River, published in the March issue of *Nature Magazine*, we learn of a new menace to the caribou. The following quota-

tion speaks for itself: "This past spring the natives reported a surprising number of carcasses . . . killed by . . . fifty-caliber shells, of the type used in the machine guns of our fighting forces. Some sporting pilot had an itching finger and 'buzzed' a few. This is not an isolated case, but was reported by prospectors and natives all over the country; they reported not only caribou, but also that moose and bear had been used as moving targets.

"The disappearance of 'Curious' (caribou) is especially regretful, because many people are still dependent upon him for food. . . . The natives, and for that matter the 'sour-doughs' of the cold interior of Alaska, have never found a suitable substitute in this climate for caribou skin boots and parkies. They still use caribou rawhide for harness . . . rawhide, known as babiche, for filler for snowshoes, and sinew for sewing comes from his back."—EDWARD A. PREBLE, *Naturalist*.

THE PARKS AND CONGRESS

78th Congress to April 1, 1944

H. R. 3524 (Randolph) To provide for the establishment of the Harpers Ferry National Monument. Introduced October 25, 1943, and referred to the Committee on the Public Lands. A favorable report by the Committee is now being drawn up.

H. R. 3084 (Magnusen) To amend the Act entitled "An Act to establish the Olympic National Park in the State of Washington," approved June 29, 1938, so as to grant for an indefinite period the right to locate and patent claims within certain areas of Olympic National Park. Introduced June 30, 1943. Referred to the Committee on Public Lands.—This proposal is not in accord with national park principles. The Department has submitted a report stating that it would approve the bill only if it were amended to provide an extension of time to the end of the war or six months thereafter.

H. R. 2241 (Barrett) To abolish Jackson Hole National Monument. Introduced March 19. A subcommittee of the Committee on the Public Lands has visited the monument. Several hearings have been held, and the latest one was November 17th.—On November 17 the bill was amended by striking out everything in the text beginning after the word "abolish" in line 5. The amended bill was reported out favorably by the Committee, with twelve for and seven against.

H. R. 3864 (Dimond), **H. R. 3884** (Chenoweth) To repeal section 2 of the Act entitled "An Act for the preservation of American antiquities," approved June 8, 1906. Introduced December 17 and 20, 1943. Referred to the Committee on the Public Lands.—These are companion bills to S. 1046 (O'Mahoney, McCarran), introduced April 29, 1943. The latter was reported out by the Senate Committee on Public Lands and Surveys, and is now on the Senate calendar. The bills would abolish the power of the President to establish national monuments by proclamation.

H. R. 1388 (Jennings) To authorize the acceptance of donations of land for the construction of a scenic pathway to provide an appropriate view of the Great Smoky Mountains National Park from the Tennessee side of the park. Passed House February 16. Passed Senate February 15. Signed by the President February 22. Public Law number 232.

H. R. 3682 (Engle) To rescind Limitation Order L-208 of the War Production Board, relating to the operation and maintenance of gold mines, and for other purposes. Introduced November 17, 1943. Referred to the Committee on the Judiciary.—Limitation Order L-208 imposed restrictions on the operation and maintenance of gold mines during the war.

H. R. 3953 (Clevenger) To authorize a survey of the military route of General Anthony Wayne during Indian wars, with a view to constructing a national parkway to be known as "The General Anthony Wayne Memorial Parkway." Introduced January 12, 1944, and referred to the Committee on the Public Lands.

NATIONAL PARKS ASSOCIATION

1214 SIXTEENTH STREET, N. W., WASHINGTON 6, D. C.

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WHY THE NATIONAL PARKS ASSOCIATION

ORIGIN OF THE NATIONAL PARK SYSTEM AND SERVICE

Wanderers penetrating the wilderness that is today known as Yellowstone National Park told tales of the natural wonders of the area. To verify these tales an expedition was sent out in 1870. At the campfire one evening, a member of the expedition conceived the plan of having these natural spectacles placed in the care of the government to be preserved for the inspiration, education and enjoyment of all generations. The party made its report to Congress, and two years later, Yellowstone National Park came into being. Today its geysers, its forests and its wildlife are spared, and the area is a nearly intact bit of the original wilderness which once stretched across the continent.

Since 1872 twenty-five other highly scenic areas, each one a distinct type of original wilderness of outstanding beauty, have also been spared from commercial exploitation and designated as national parks. Together they comprise the National Park System. To manage the System the National Park Service was formed in 1916. In its charge are national monuments as well as other areas and sites of varied classification.

COMMERCIAL ENCROACHMENT AND OTHER DANGERS

Most people believe that the national parks have remained and will remain inviolate, but this is not wholly true. Selfish commercial interests seek to have bills introduced in Congress making it legal to graze livestock, cut timber, develop mines, dam rivers for waterpower, and so forth, within the parks. It is sometimes possible for an organized small minority working through Congress to have its way over an unorganized vast majority.

Thus it is that a power dam built in 1913 floods the once beautiful Hetch Hetchy Valley in Yosemite National Park; and that during World War I certain flower-filled alpine meadows in the parks were opened to grazing. The building of needless roads that destroy primeval character, the over-development of amusement facilities; and the inclusion of areas that do not conform to national park standards, and which sometimes contain resources that will be needed for economic use, constitute other threats to the System. A danger also grows out of the recent establishment of ten other kinds of parks lacking the standards of the world-famous primeval group. These are designated by descriptive adjectives, while the primitive group is not. Until the latter are officially entitled *national primeval parks* to distinguish them from the others, they will remain subject to political assaults.

THE NATIONAL PARKS ASSOCIATION

The Association was established in 1919 to promote the preservation of primeval conditions in the national parks, and in certain national monuments, and to maintain the high standards of the national parks adopted at the creation of the National Park Service. The Association is ready also to preserve wild and wilderness country and its virgin forests, plantlife and wildlife elsewhere in the nation; and it is the purpose of the Association to win all America to their appreciation.

The membership of the Association is composed of men and women who know the value of preserving for all time a few small remnants of the original wilderness of North America. Non-political and non-partisan, the Association stands ready to oppose violations to the sanctity of the national parks and other areas. When threats occur, the Association appeals to its members and allied organizations to express their wishes to those in authority. When plans are proposed that merely would provide profit for the few, but which at the same time would destroy our superlative national heritage, it is the part of the National Parks Association to point the way to more constructive programs. Members are kept informed on all important matters through the pages of NATIONAL PARKS MAGAZINE.

THE NATIONAL PARKS AND YOU

To insure the preservation of our heritage of scenic wilderness, the combined force of thinking Americans is needed. Membership in the National Parks Association offers a means through which you may do your part in guarding the national parks and other wilderness country. Join now. Annual membership is \$3.00 a year; supporting membership \$5.00 a year; sustaining membership \$10.00 a year; contributing membership \$25.00 a year; life membership \$100.00, and patron membership \$1,000.00 with no further dues. All memberships include subscription to NATIONAL PARKS MAGAZINE.

WHEN CONSERVATION TEACHING
BECOMES PART OF SCHOOL CURRICULUM
AN ADVANCE WILL BE MADE
TOWARD FURTHERING NATIONAL WELFARE

